

The following are comparative measurements :—

KALLAR	Other specimens in my collection. (Burma, Assam, E. & W. Himalayas.)	Evans measurements.
<i>acuta</i> ♂♂ 43-44 mm.	♂♂ 46.6 mm. (average.)	40-50 mm. for both sexes.
<i>bulis</i> ♂♂ 45 and 44 mm.	♂♂ 46 mm. (average.)	¹ 55-45 mm. for both sexes
<i>acuta</i> ♀ 50 mm. (Ootacamund.)	♀♀ 50 mm. (average.)

In *acuta* all the Kallar specimens are small and the HW is much more rounded and the FW less pointed than is the case with other specimens in my collection. They are very constant in shape and size and would seem to warrant subspecific rank. My two (?) specimens of *bulis* exhibit the same characteristics.

Evans states that in *bulis* the upper portion of the discal band in 6 and 7 on the UNH is not in line with the bar at the end of the cell: in *acuta* it is in line. My experience is that this is not strictly the case, as, in the majority of my specimens of *acuta* it is slightly out of alignment with the discal band though occasionally it is in direct alignment. In my first specimen of *bulis* the bar and the band are more out of alignment than is the case in any other of my specimens. In the second specimen it is sufficiently out of line for me to identify it as *bulis*, but the upperside is that of *acuta*, whereas in the first specimen the upperside markings are typical of *bulis*. The second specimen has a great deal of orange on the HW and the tooth on the forewing is definite. This, however, may be due to its being a DS butterfly whereas the other one is a WS specimen.

The only local specimen of ♀ *acuta* in my possession is one from the collection of the late O. C. Ollenbach, Esq., and is rather vaguely marked 'Ootacamund'. As this is large and much more of the shape and size of my northern specimens I suspect that it comes from the drier northern slopes of the Nilgiris. It would surprise me to meet with any *Curetis* at the altitude of Ootacamund town.

To conclude, I have had no experience of *Curetis* from elsewhere in Southern India and the particular characteristics I have mentioned may be peculiar to most specimens from the south. Nevertheless, it seems to me that a subspecies is indicated, whether for this locality or for a larger area.

KETTI, NILGIRIS,
5th Oct. 1942.

M. A. WYNTER-BLYTH.

XVIII. ADDITIONS TO THE LIST OF SIMLA BUTTERFLIES PUBLISHED IN VOL. XLI, NO. 4.

1. *Papilio machaon asiatica*, v. *ladakensis*, Moore. Poo, July, 1941. (Inner hills.)
2. *Ismene aedipodea aegina*, Plotz. Simla, Spring, 1942. Hitherto not recorded west of Mussoorie.

¹ Evans measurements seem to me to be on the small side.

The following rarities have also been recorded:—

Appias lalage lalage, Doubleday. Previously recorded only from Summerhill and the Glen in May, 1938. Fresh record from Sanawar in 1942.

Amblypodia alemon, de Niceville. Simla, 1940. Recorded once before.

Virachola perse perse, Hew. Sanawar, 1941. Recorded once before some years ago in the Kalka neighbourhood.

KETTI, NILGIRIS,

M. A. WYNTER-BLYTH.

5th October, 1942.

XIX.—NOTES ON TWO MAJOR CATERPILLAR PESTS OF *EUGENIA JAMBOS* (ROSE APPLE).

(With a plate).

Eugenia jambos is a favourite plant in most private gardens in Travancore, grown for shade, ornament and for its sweet rose-scented fruit. The tree puts forth fresh shoots twice in the year after the S.W. and the N.E. monsoons. When fresh tender shoots with small copper coloured leaves appear in profusion, they are subject to the attack of a number of insects, chief among which are the two leaf-eating caterpillars described in this paper. Among others are the Lasiocampid caterpillar *Metanistria hyrtaca* Cr., the Geometrid *Thalassodes flavifusata* Wlk, the Tortricid *Homona coffearia* N., a shoot boring caterpillar (unidentified), a leaf miner (unidentified), a species of *Apoderus* twisting up the leaf tips for oviposition, etc.

The two major caterpillar pests are the Noctuid *Bombotelia delatrix* Guen, and the Eucosmid *Argyroplote mormopa* Meyrick.

1. *Bombotelia* (*Eutelia*) *delatrix* Guen.

Life-history.—Eggs are laid singly (Fig. 1) both on the upper and on the lower surfaces of tender foliage. The egg (Fig. 2) is circular, 1.3 mm. in diameter and plano-convex. Two distinct regions can be made out—a thin ring-like peripheral region, closely adherent to the leaf surface and the central region. The central region is slightly convex and is of a creamy white colour. Fine radial striations start from the centre of the egg and radiate towards the periphery.

The egg hatches in 3-4 days and the larva issues out through a slit at the edge of the central region. The newly-hatched larva is 2 mm. long and is light yellow, with a slight greenish tinge. It starts eating small holes in the tender leaf and, after a day or two, drops to the leaf below by means of a slender thread. After the first moult, the caterpillar begins to feed voraciously. It feeds mostly at night, remaining quiescent on the leaf throughout the day, and gets full-grown in 12-14 days.